

BLASTING NOZZLES

DTI INSIDE ENSURES:

FOR WATERJETTING APPLICATIONS

MAXIMUM NOZZLE LIFE

JET STREAM RELIABILITY

PERFORMANCE CONSISTENCY

OPTIMUM PRODUCTIVITY



MANUFACTURED WITH



PRODUCT FEATURES AND BENEFITS

QUALITY THAT BLASTS AWAY INDUSTRY NORMS

dti™ manufactures each of our standard waterjetting nozzles with the highest quality materials and precision machining techniques in the industry. Each nozzle is equipped with heat treated, stainless steel mounts, aerospace grade titanium retainers, and 100% quality inspection. Every step dti™ takes above standard quality norms, ensures:

MAXIMIZED NOZZLE LIFE

CONSISTENT JET STREAM PROFILE AND COHERENCY

REDUCED DOWNTIME

SUPERIOR BLASTING PERFORMANCE

OPTIMIZED PRODUCTIVITY

PERFORMANCE VERSATILITY

ALIGN ORIFICE PERFORMANCE TO JOB PERFORMANCE NEEDS

dti™ offers standard blast nozzle assemblies with your choice of orifice material. For unbeatable lifetimes and optimum performance consistency, tetraCORE™ orifices minimize downtime and maximize productivity. For less demanding jobs, dti™ Sapphire orifices are precision manufactured to ensure quality and performance.

ORIFICE MATERIALS

SAPPHIRE PRODUCT FEATURES

- **Utility Grade:** Long life
- High jet stream coherency
- Max jet stream length
- Premier sapphire material quality
- Aerospace grade mounting & retaining materials
- 100% quality inspected

tetraCORE™ PRODUCT FEATURES

- **Performance Grade:** 10X longer life than Sapphire
- 100% tested at 50K psi
- Zero ID edge degradation over use
- Premium jet stream coherency & integrity
- Optimized jet stream length and consistency
- Maximized uptime and productivity



DTI-82

Thread Pitch: 3/8" - 24
Description: 3/8" hex head
Sealing Angle (included): 84°
Similar to: 4065, 4067



DTI-94

Thread Pitch: M10 x 1.5
Description: 5mm hex key slot
Sealing Angle (included): 58°
Similar to Form: 21, 3261, 3688, Type 965



DTI-88

Thread Pitch: 3/8" - 24
Description: 3/8" hex head
Sealing Angle (included): 112°
Similar to: 3024, 3546, Type 972



DTI-95

Thread Pitch: 7/16" - 20
Description: 7/16" hex head, O-Ring Seal



DTI-89

Thread Pitch: 7/16" - 20
Description: 7/16" hex head
Sealing Angle (included): 112°
Similar to: 3076, 3604, Type 975



DTI-97

Thread Pitch: 1/4" - 28
Description: 1/4" hex head
Sealing Angle (included): 112°
Similar to: 3026, 3606



DTI-90

Thread Pitch: M10 x 1.5
Description: 5mm hex key slot, Shortened
Sealing Angle (included): 58°
Similar to: 3727



DTI-87

Description: Long Stem
Sealing Angle (included): 84°
Similar to: 2908



DTI-91

Thread Pitch: M10 x 1.5
Description: 5mm hex key slot
Sealing Angle (included): 66°



DTI-58

Description: Long Stem
Sealing Angle (included): 60°
Similar to: 2720, Type 257

NEW MATERIAL GRADE tetraCORE™

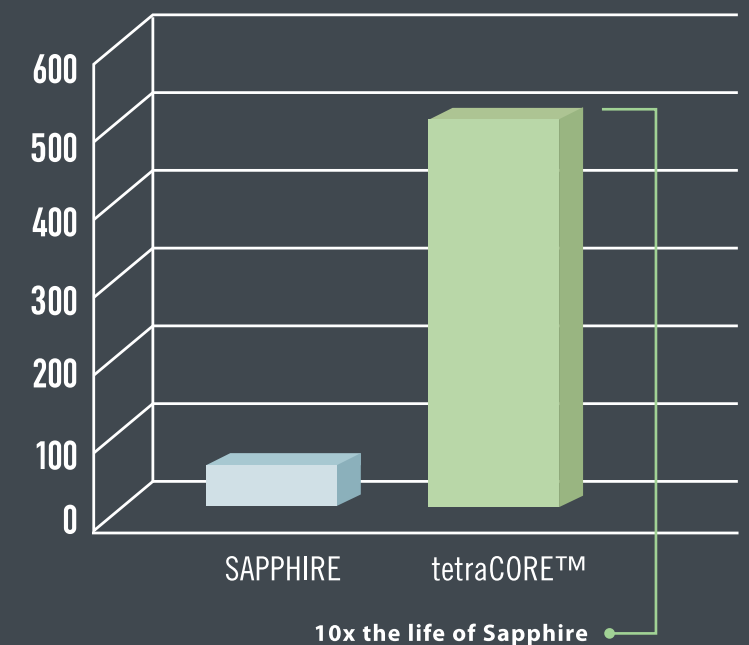
THE AFFORDABLE SAPPHIRE REPLACEMENT, DELIVERING A NEW TIER OF WATERJETTING PERFORMANCE.

Precision engineered to offer ultimate performance consistency, tetraCORE™ is a tetrahedrally bonded material that resists erosion, chipping and fracturing to decrease down time, optimize productivity and reduce operating cost. tetraCORE™ approaches the hardness and wear resistance of diamond, at an affordable price point, allowing you to go the distance with your production without costly downtime to change out unreliable orifices.

LIFETIME COMPARISON

WHAT DOES YOUR DOWNTIME REALLY COST?

ELAPSED TIME IN HOURS



FLOW RATE & PERFORMANCE CHART

PRESSURE (PSI & BAR)

ORIFICE ID SIZE		20,000 psi (1400 bar)		25,000 psi (1800 bar)		30,000 psi (2000 bar)		35,000 psi (2500 bar)		40,000 psi (2800 bar)		43,500 psi (3000 bar)	
in	mm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm
0.008	0.20	0.18	0.66	0.20	0.75	0.22	0.82	0.23	0.88	0.24	0.91	0.26	0.98
0.009	0.23	0.22	0.84	0.25	0.95	0.27	1.03	0.29	1.11	0.31	1.15	0.33	1.24
0.010	0.25	0.27	1.04	0.31	1.17	0.34	1.27	0.36	1.37	0.38	1.43	0.41	1.53
0.011	0.28	0.33	1.25	0.37	1.41	0.41	1.54	0.44	1.66	0.46	1.73	0.49	1.86
0.012	0.30	0.39	1.49	0.44	1.68	0.49	1.84	0.52	1.97	0.55	2.07	0.58	2.21
0.013	0.33	0.46	1.75	0.52	1.97	0.57	2.15	0.61	2.32	0.64	2.44	0.69	2.59
0.014	0.36	0.54	2.03	0.60	2.28	0.66	2.50	0.71	2.69	0.75	2.83	0.80	3.01
0.015	0.38	0.62	2.33	0.69	2.62	0.76	2.87	0.82	3.08	0.86	3.26	0.91	3.45
0.016	0.41	0.70	2.66	0.79	2.98	0.86	3.26	0.93	3.51	0.98	3.71	1.04	3.93
0.017	0.43	0.79	3.00	0.89	3.37	0.97	3.68	1.05	3.96	1.11	4.20	1.17	4.43
0.018	0.46	0.89	3.36	1.00	3.77	1.09	4.13	1.18	4.44	1.25	4.72	1.31	4.97
0.019	0.48	0.99	3.75	1.11	4.20	1.22	4.60	1.31	4.95	1.39	5.27	1.46	5.54
0.020	0.51	1.10	4.15	1.23	4.66	1.35	5.10	1.45	5.49	1.55	5.85	1.62	6.14
0.021	0.53	1.21	4.58	1.36	5.14	1.49	5.62	1.60	6.05	1.71	6.46	1.79	6.76
0.022	0.56	1.33	5.03	1.49	5.64	1.63	6.17	1.76	6.64	1.88	7.10	1.96	7.42
0.023	0.58	1.45	5.49	1.63	6.16	1.78	6.74	1.92	7.26	2.05	7.77	2.15	8.11
0.024	0.61	1.58	5.98	1.77	6.71	1.94	7.34	2.09	7.91	2.24	8.47	2.34	8.83
0.025	0.64	1.72	6.49	1.92	7.27	2.11	7.96	2.27	8.58	2.43	9.20	2.54	9.59
0.026	0.66	1.86	7.02	2.08	7.87	2.28	8.61	2.46	9.28	2.64	9.97	2.74	10.37
0.027	0.69	2.00	7.58	2.24	8.48	2.46	9.28	2.65	10.01	2.85	10.76	2.96	11.18
0.028	0.71	2.16	8.15	2.41	9.12	2.64	9.98	2.85	10.77	3.07	11.59	3.18	12.02
0.029	0.74	2.31	8.74	2.59	9.79	2.83	10.71	3.06	11.55	3.29	12.44	3.41	12.90
0.030	0.76	2.47	9.36	2.77	10.47	3.03	11.46	3.27	12.37	3.53	13.33	3.65	13.80
0.031	0.79	2.64	9.99	2.96	11.18	3.24	12.24	3.49	13.21	3.77	14.25	3.90	14.74
0.032	0.81	2.82	10.65	3.15	11.91	3.45	13.04	3.72	14.07	4.02	15.20	4.15	15.70
0.033	0.84	3.00	11.32	3.35	12.67	3.67	13.87	3.96	14.97	4.28	16.18	4.42	16.70
0.034	0.86	3.18	12.02	3.56	13.45	3.89	14.72	4.20	15.89	4.55	17.19	4.69	17.73
0.035	0.89	3.37	12.74	3.77	14.25	4.13	15.60	4.45	16.84	4.82	18.24	4.97	18.78
0.036	0.91	3.57	13.48	3.99	15.07	4.37	16.50	4.71	17.82	5.11	19.31	5.26	19.87
0.037	0.94	3.77	14.24	4.21	15.92	4.61	17.43	4.98	18.82	5.40	20.42	5.55	20.99
0.038	0.97	3.97	15.02	4.44	16.79	4.86	18.38	5.25	19.86	5.70	21.55	5.86	22.14
0.039	0.99	4.19	15.82	4.68	17.68	5.12	19.36	5.53	20.92	6.01	22.72	6.17	23.32
0.040	1.02	4.40	16.65	4.92	18.60	5.39	20.37	5.82	22.00	6.33	23.92	6.49	24.53
0.041	1.04	4.63	17.49	5.17	19.54	5.66	21.40	6.12	23.12	6.65	25.15	6.82	25.77
0.042	1.07	4.86	18.36	5.42	20.51	5.94	22.46	6.42	24.26	6.99	26.42	7.15	27.04
0.043	1.09	5.09	19.24	5.69	21.49	6.23	23.54	6.73	25.44	7.33	27.71	7.50	28.35
0.044	1.12	5.33	20.15	5.95	22.50	6.52	24.64	7.05	26.63	7.68	29.04	7.85	29.68
0.045	1.14	5.58	21.08	6.23	23.54	6.82	25.78	7.37	27.86	8.04	30.39	8.21	31.04
0.046	1.17	5.83	22.03	6.51	24.59	7.13	26.93	7.70	29.12	8.41	31.78	8.58	32.44
0.052	1.32	7.45	28.16	8.31	31.42	9.10	34.41	9.85	37.22	10.79	40.77	10.97	41.45
0.067	1.70	12.38	46.79	13.79	52.12	15.11	57.12	16.36	61.85	18.06	68.25	18.20	68.80

CUSTOMIZE YOUR ORDER

CHOOSE YOUR ORIFICE, STYLE & SIZE

PART NUMBER CONFIGURATION

XX – XX – XX

ORIFICE TYPE – NOZZLE STYLE – SIZE

TA = tetraCORE™ Orifice

SA = Sapphire Orifice

PL = Plug, NO ORIFICE

STANDARD ORIFICE SIZES

0.006" - 0.035"

ADDITIONAL SIZES

0.003"-0.005" | 0.036"-0.070"

DISTRIBUTION PARTNER

Powerjet is the exclusive UK & Ireland Distributor of tetraCORE™ waterjetting nozzles for Diamond Technology Innovations.



Powerjet specializes in the sale, rental and service of high pressure and ultra high pressure waterjetting equipment.

mail@powerjetrentals.co.uk
powerjetrentals.co.uk
+44(0)14 440 5757



dti™ is a manufacturer of waterjet orifices for OEMs and Distributors only. To place an order, contact your waterjet parts supplier or contact us for your nearest authorized dealer.

DIAMOND TECHNOLOGY INNOVATIONS

1043 Kaiser Rd SW
Olympia, WA 98512

info@dtiINSIDE.com
dtiINSIDE.com
360.866.1337